



Unit Title:	Congruence and Similarity
Unit Vocabulary:	Congruence, similarity, quadrants, preimage, image, transformation, translation, vertical, horizontal
Upcoming Common Assessments (MasteryConnect):	Minor Quiz - August 28, 2025

	Standard(s) + Learning Objective	Activating Experience (Opening, may include "Scholar Starter")	Learning Experience (Work Time: SB Materials and Resources, Vocab, Scaffolds/Supports, SWRL, Costas)	Formative or Summative Assessment(s)	Summarizing Experience (Closing)	WICOR, AVID and/or ELlevation Strategies (aligned with learning objective)
M O N D A Y	Standard (write out): 8. MGSR.3.5: Rotate geometric figures 90, 180, 270 degrees both clockwise and counterclockwise, about the origin in a coordinate plane Learning Objective Skill (what), Content (why), Product (how): Scholars will perform rotation of figures on the coordinate plane 90, 180, 270	Scholar Starter Bell Ringer cycle 1 Day 6 Quick Write: Analyzing Patterns in Rotations You've rotated figures 90°, 180°, and 270° about the origin in previous lessons. Think back to what happened each time	<u>Standards Based Materials & Resources:</u> Group activity McGraw Hill text p.69 to 70 Individual Task <u>Content/Academic Vocabulary:</u> Rotation, Center of Rotation, angles of Rotation, Clockwise, Counterclockwise, Origin, Image, Preimage, Coordinate Plane, Transformation,, Congruent,	Check the students individual activity to see if the understood the lesson Exit Ticket Describe a real-life situation where rotation is used?	1-2-3 Rotation Recap 1- One thing you learnt 2- Two vocabulary learnt 3. Describe how to perform rotation in three(3) steps	Quick Write - WICOR (writing and Inquiry) Think Pair share WICOR (collaboration & oral language practice) Focus on patterns and strategy WICOR (Inquiry and organization)

	degrees both clockwise and counterclockwise, about the origin in a coordinate plane. What patterns do you notice in how the coordinates change when a figure is rotated about the origin? How can you use those patterns to predict the coordinates of a rotated image without using a graph? Writing Time (3 minutes): Encourage scholars to include mathematical language and, if possible, an example (e.g., rotating point A(2, 3) 90° clockwise). Think-Pair-Share (1.5 minutes): Partners discuss their patterns and strategies.	Vertex, Quadrant. <u>ILAP/IEP/504 Scaffolds & Supports:</u> -Use of hands on resources such as patty paper -Visuals presentations, videos -Translation of key words in spanish (MLs) -Use of anchor chart to support., <u>Opportunities to SWRL:</u> S- The students explains rotation using academic vocabulary W- Write about mathematical patterns and concepts R- Read diagrams, definitions and peers work . L- The students listen to each other. <u>Costa's Levels of Thinking/Questioning:</u> Level 1: What is the rule for rotating a point 90° clockwise about the origin? Level 2: Compare the results of rotating a point 90° clockwise vs. 90° counterclockwise. What do you notice? Level 3: A student says that rotating a shape 360° is the same as rotating it 0°. Is the student correct? Explain why or why not.			
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Standard (write out):**8.MGSR.2.3**

Identify the congruent corresponding angles of similar polygons

Learning Objective

Skill (what), Content (why),
Product (how):

Scholars can determine a sequence of transformations that maps one figure to another figure.

Scholar Starter

Bell Ringer cycle 1
Day 7

Transformation Match Up

Create sets of cards with the following:

Card A: Diagrams of figure transformations (e.g., a triangle rotated 90°, a square reflected over y-axis).

Card B:
Descriptions of sequences of transformations (e.g., "Reflected over x-axis, then translated 3 units right").

Students work in

Essential Questions

How can I describe the order of transformations that change one figure into another?

Standards Based Materials & Resources:

The teacher models how to identify and write the series of transformations performed on a figure.

Scholars and students do some together

Group / Individual task McGraw Hill text p. 72 -76

Content/Academic Vocabulary:

Translation, Rotation preimage, image, coordinate plane, vertical and horizontal, Origin, Reflection (flip)

ILAP/IEP/504 Scaffolds & Supports:**Exit Ticket**

The scholars given prompt

How confident are you identifying a series of transformations?

Each student will show their level of understanding by showing a color

● Green: "I get it! I can identify and explain a series of transformation

● Yellow: "I'm starting to get it, but I still need a little help."

● Red: "I'm confused and need more practice.

Summarizer

Answer the essential question in their notebook and share with a partner.

W-I-

Inquire-students analyze and justify which translation is correct

C- Collaboration-
Turn and talk from discussion

O- Organization-
Students used coordinate notation to structure thinking and and explain movement

R- Read the content from text

Sentence Frames.
Think pair share

		pairs or small groups. Their goal: Match each figure (Card A) with its correct transformation sequence (Card B). Use academic language as they discuss: “I think this matches because...” “The figure flipped over the x-axis, so it must be a reflection.” Give students a sentence starter mat: “The first	Sentence starters for students -Use of hands on resources such as patty paper -Visuals presentations, videos -Translation of key words in spanish (MLs) Peer support with mixed proficiency <u>Opportunities to SWRL:</u> S- Students will discuss the prompt in the activating strategy. W- The students will write the response to the prompt in their notebook R- Read the coordinates from the preimage and image after translation L- Listen to pair discussion. <u>Costa's Levels of Thinking/Questioning:</u> Level 1: What type of transformation is shown in this figure? (e.g., rotation, reflection, translation) Which direction is the figure rotated?			
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		transformation is..." "Next, the figure was..." "I know because..." After matching, students pick one match to explain to a neighboring pair.	Level 2: Describe the sequence of transformations that maps the first figure onto the second. How does reflecting a figure over the y-axis change its position on the coordinate plane? Level 3: Given two figures, explain how you would determine the exact sequence of transformations needed to map one onto the other. If a figure is reflected and then rotated, how does the order of these transformations affect the final position? Explain your reasoning.			
W E D N E S D A Y	Standard (write out): 8.MGSR.3.6 Create a dilation using a given scale factor and describe the effects of transformation	Scholar Starter A question of mastery connect, students identify the series of rigid	<u>Standards Based Materials & Resources:</u> Video on dilation The teacher models how to do dilation of an image.	Exit Ticket A student claims that a dilation can change both the size and the shape of a figure. Do you agree	Students selected at random to respond to the question given in the exit ticket.	Sentence stem and word bank WICOR W- Students are asked to write

	Learning Objective Skill (what), Content (why), Product (how): Scholars will be able to perform and describe dilations of geometric figures on the coordinate plane, including identifying the scale factor and center of dilation.	motion #HANGING HASHTAGS# Materials: Hashtag cards with math vocabulary terms or phrases #Dilation, #ScaleFactor, #CenterOfDilation, #Coordinates, #Multiply, #ShrinkOrGrow) Definition or description cards (can include diagrams or examples) Hang all the hashtag vocabulary cards around the classroom.	McGraw Hill text p. 77 to 80 <u>Content/Academic Vocabulary:</u> Dilation, scale factor, center of dilation, Enlargement, reduction, image, preimage, coordinate plane, proportional. <u>ILAP/IEP/504 Scaffolds & Supports:</u> Real world example of dilation (practical examples) Visual representations Translations of key words in scholars' home language (MLs) Fill in the blank with word bank/ sentence stem(MLs) <u>Opportunities to SWRL:</u> S- Students discussion in group or partner work W- The students will write the response to the prompt in their notebook R- Read the coordinates from the preimage and image after reflection. Read the content from text.	or disagree? Justify your answer with reasoning and examples. Write a written argument using vocabulary like <i>proportional, scale factor, shape, angles.</i> Provide a word bank and sentence starters like: <i>I agree/disagree because...</i> <i>A dilation keeps the shape the same because...</i>	the definition or take notes on the hashtags/vocabulary related to dilation I- Inquiry The use of questions that deepen thinking (DOK 2 and DOK 3) encourages students to analyze, predict, and explain concepts: C – Collaboration Students are encouraged to discuss their hashtags in small groups or with partners, promoting peer interaction and shared reasoning. O- Organization The students organize information in their notebook or
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	Hand out matching definition/example cards randomly to students or pairs. These cards describe or illustrate each hashtag term (without saying the term). Students walk around the room, read the hanging hashtags, and try to match their definition/example card to the correct hashtag. (students take notes as needed) Tape definitions to correct hashtags Ask 2–3 students to explain their match aloud, using full sentences and emphasizing correct academic language. Prompt them with:	Also read definitions to hashtags in activating strategy L- Listen to pair discussion. <u>Costa's Levels of Thinking/Questioning:</u> Level 1: What is the scale factor in the given dilation. Did the figure enlarge or reduce to form the image given? Level 2: A figure is dilated using a scale factor less than 1. Describe how the image will look compared to the original triangle. How do the side lengths and angles change? Level 3: A student claims that a dilation can change both the size and the shape of a figure. Do you agree or disagree? Justify your answer with reasoning and examples. Write a written argument using vocabulary like <i>proportional</i>, <i>scale factor</i>, <i>shape</i>, <i>angles</i>.			matching the correct hashtags with definitions R- Read Scholars read the definitions to match to the hashtags/vocabulary related to dilation Students transition to the McGraw Hill textbook (p.77 to 80) to apply the geometric concept of dilation on the coordinate plane, which incorporates content reading and application.
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		<i>"We matched this hashtag with this description because..."</i>				
T H U R S D A Y	Standard (write out): 8. MGSR.3.6 Create a dilation using a scale factor and describe the effect of a dilation <u>Learning Objective</u> Skill (what), Content (why), Product (how): Scholars can use coordinate notation to describe the sequence of rigid motions and dilations.	Scholar Starter A mastery connect question on dilation of a figure. <u>Be a Detective!</u>	<u>Standards Based Materials & Resources:</u> McGraw Hill p. 81 to 84 <u>Additional activity</u> <u>Content/Academic Vocabulary:</u> Reflection,Dilation, Preimage, Image, Coordinate Plane, Axis of symmetry, Congruent, Symmetry, Transformation, Orientation. <u>ILAP/IEP/504 Scaffolds & Supports:</u> Visual representations Translations of key words in scholars' home language (MLs)	<u>Exit Ticket</u>	Confidence Check (Circle one): 😊 I can explain rigid motions and dilations 😐 I need a bit more practice 😞 I'm still confused	Be a Detective WICOR W- Write- Students write their reasoning for each transformation I- Inquire The entire activity is problem-solving and reasoning-based. Students must figure out the sequence and type of transformations based on

			Fill in the blank with word bank (MLs) <u>Opportunities to SWRL:</u> S- Students discussion in group or partner work W- Students write responses to puzzle R- Read the coordinates from the preimage and image after transformation. Read the content from text. L- Listen to pair discussion. <u>Costa's Levels of Thinking/Questioning:</u> Level 1: What does a dilation do to the size of a geometric figure? Explain your answer in one sentence. Level 2: A triangle is reflected over the y-axis and then dilated by a scale factor of 3. Describe how both transformations affect the triangle's position and size. Use coordinate notation and explain your reasoning. Level 3: A student says that reflecting a shape and then dilating it will give the same result as dilating first and then reflecting. Do you agree or disagree? Use an example with a point and explain your reasoning.			coordinate evidence, without being told directly. C- Collaboration Students can work in pairs or groups to compare transformation sequences, debate reasoning, and validate answers. O- Organize Students record transformations in a structured chart ("Transformation Relay Log") with clear columns for type, notation, and explanation. R-Read Students read and interpret coordinate data, transformation descriptions, and
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						vocabulary from the word bank.
F R I D A Y	Standard (write out): 8. MGSR.3.5: 8. MGSR.3.6 8.MGSR.3.6 Learning Objective Skill (what), Content (why), Product (how): Scholars can complete their quiz with atleast 80% mastery	Scholar Starter Recap of transformation QUIZ	<u>Standards Based Materials & Resources:</u> QUIZ <u>Content/Academic Vocabulary:</u> Rotation, Center of Rotation, angles of Rotation, Clockwise, Counterclockwise, Origin, Image, Preimage, Coordinate Plane, Transformation,, Congruent, Vertex, Quadrant. <u>ILAP/IEP/504 Scaffolds & Supports:</u> -Their notes <u>Opportunities to SWRL:</u>	QUIZ	QUIZ	QUIZ